

REMARKS

Claims 1-15 are pending. Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

Priority

Applicants acknowledge the Examiner's acknowledgement of foreign priority for this application under 35 U.S.C. 119(a)-(d) based on application no. 2001-81106 filed December 19, 2001.

Information Disclosure Statement

Applicants acknowledge the Examiner's consideration of the IDS submitted on March 5, 2002.

Claim Objections

The Examiner has objected to the word "commend" in claim 3, line 10 as an apparent misspelling. The Applicants have amended claim 3 to correct the spelling of "commend" to "command." Support for this amendment is found in paragraph [93] on page 15 of this application as filed. In view of this amendment, Applicants respectfully request that this objection be removed.

Claim Rejections Under 35 U.S.C. § 112

Claim 3 was rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. Specifically, the Examiner states that claim 3 "recites the limitation 'voyage information' in '...a program scheduler having voyage information' which was not addressed in the specifications." Applicants have amended claim 3 to replace "voyage" with "navigation." Support for this amendment is found in paragraph [91] on page 15 of the application as filed. In view of this amendment, Applicants respectfully request that this rejection be removed.

Claims 4 and 5 were rejected under 35 U.S.C. § 112, first paragraph, by virtue of their dependency on rejected claim 3. Applicants submit that the amendment above to claim 3, from which claims 4 and 5 depend, satisfies the written description requirement. Therefore, Applicants respectfully request that this objection be removed.

Claim 14 was rejected under 35 U.S.C. § 112, second paragraph, as indefinite. The Examiner states that the phrase "'such as' renders the claim indefinite because it is unclear

whether the limitations following the phrase are part of the claimed invention.” (Citation omitted). The Applicants have amended claim 14 to replace “such as variables deciding” with “that decide.” In view of this amendment, Applicants respectfully request that this rejection be removed.

Claims 7, 10, and 13-15 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite. The Examiner states that the word “if” renders the claim indefinite “because the claim limitations are unclear if the choice is not addressed.”

In claim 7, the word “whether” has been replaced by the word “where” and the phrase “if the fitting index is the largest” has been deleted. In view of this amendment, Applicants respectfully request that this rejection be removed.

In claim 10, the phrase “for inclusive call relations” has been added to replace the phrase “if there are inclusive call relations.” Therefore, Applicants respectfully request that this rejection be removed.

In claim 13, the phrase “, if the field exists in the analyzed screen information,” has been deleted and the phrase “when the field exists in the analyzed screen information” has been added. Therefore, Applicants respectfully request that this rejection be removed.

In claim 14, the phrase “if there exists the critical variable,” has been deleted and the phrase “for the critical variable,” has been added. In addition, the word “if” has been deleted in three portions of claim 14 and replaced with the word “for” and appropriate grammatical context. Therefore, Applicants respectfully request that this rejection be removed.

In claim 15, the phrase “, if the fitting index is the largest,” has been deleted and the phrase “, for the largest fitting index,” has been added. Therefore, Applicants respectfully request that this rejection be removed.

Claims 8, 9 and 12 were rejected under 35 U.S.C. § 112, second paragraph, by virtue of their dependency on rejected claim .

Claim 8 depends from independent claim 6 that has not been rejected for indefiniteness. Therefore, Applicants respectfully request that this rejection be removed.

Claim 9 depends from claim 7 that has been rejected as indefinite. Applicants have amended claim 7 as described above to overcome the indefiniteness rejection. Accordingly, dependent claim 9 is also no longer indefinite in view of this amendment to claim 7 and Applicants respectfully request that this rejection be removed.

Claim 12 ultimately depends from claim 7 and was rejected as indefinite. Applicants submit that the amendment above to claim 7, from which claims 11 and 12 depend, satisfies

the definiteness requirement. Therefore, Applicants respectfully request that this rejection be removed.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-10 and 12-15 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,289,382 ("Bowman-Amuah"). The Applicants first note that claim 12 was identified by the Examiner in the November 16, 2005 Office Action as rejected under both 35 U.S.C. § 102(e) (anticipation) and 35 U.S.C. § 103 (obviousness). However, the Examiner only explained the rejection of claim 12 under the § 103 rejection. Accordingly, the Applicants shall address that rejection of claim 12 under the § 103 rejections discussed below.

Summary Of Response To § 102 Rejection

Applicants respectfully traverse this rejection based on Bowman-Amuah for the reasons summarized here and explained in detail below.

With regard to claim 1 and dependent claims 2-5, Bowman-Amuah does not teach or suggest at least the claim 1 elements of:

- "identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code..."; and
- "automatically generating the codes for wrapping the program workflow which includes business logic identified...".

With regard to claim 6 and dependent claims 5-10 and 12-14, Bowman-Amuah does not teach or suggest at least the claim 6 elements of:

- "identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code analyzing portion;" and
- "generating automatically the codes for wrapping program workflow which include business logic identified in the business logic identifying portion."

With regard to claim 15, Bowman-Amuah does not teach or suggest at least the claim 15 elements of:

- "identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code analyzing portion;" and
- "generating automatically the codes for wrapping program workflow which includes business logic identified in the business logic identifying portion;"

For these reasons, reconsideration of the rejection of claims 1-10 and 13-15 is respectfully requested.

Present Application

The apparatus of claim 1 calls for an “apparatus for wrapping existing procedure oriented program into component based system” that comprises:

“a code analyzing portion for extracting information necessary for program analysis in source program or codes implemented with source procedural language;

a business logic identifying portion for identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code analyzing portion; and

a component wrapper generating portion for automatically generating the codes for wrapping the program workflow which includes business logic identified in the business logic identifying portion.”

From this claim 1, it can be seen that an embodiment of the present application relates to improvements over conventional wrapping techniques that overcame fundamental problems of complexity, maintenance and ease of use. (See page 2, paragraphs [07-10] in application as filed for problems with conventional wrapping techniques). Rather than follow conventional wrapping techniques that merely replaced prior software architecture with new software architecture (e.g. with new user interfaces) (paragraph [07]) in a manner that complicated the use of the program, an embodiment of the present application wraps only a “portion [of the existing procedure oriented program] of very high probability of reuse...”. In this way, the complexity of the conventional wrapping techniques is limited since only portions of the existing program (those with “high probability of reuse”) are wrapped.

None of the following elements from claim 1 are taught or suggested by Bowman-Amuah:

- “identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code...”; and
- “automatically generating the codes for wrapping the program workflow which includes business logic identified...”.

Bowman-Amuah

Bowman-Amuah provides a long description (308 columns, 122 sheets of drawings) of a system, method and article of manufacture for delivering services using globally addressable interfaces. While the general topics of “components” and “wrapping with component interfaces” are raised in certain portions of this lengthy description, at least two of the claimed elements of claim 1 are not taught or suggested by Bowman-Amuah, namely,

- “identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code...”; and
- “automatically generating the codes for wrapping the program workflow which includes business logic identified...”.

No “Identifying A Portion Of Very High Probability Of Reuse Using The Information Necessary For Program Analysis Extracted In The Code...”

The Examiner cites column 141, lines 22-35 of Bowman-Amuah as teaching the claim 1 element of “a business logic identifying portion for identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code analyzing portion.” Those lines of Bowman-Amuah read:

A component-based software architecture may have a domain component model shared by the application processes. The component model contains the core business components that represent the business directly in software. 25
These components perform behaviors upon request by windows, reports, or batch process control objects.
The presence of a component model distinguishes component-based systems from procedural, client/server systems. In a procedural approach, there is no shared business component model. This typically requires, for example, 30
programs to pass data to each other in a context record. Thus, any changes to the data may affect many programs. The extent of business logic reuse is also usually less with the procedural approach. 35

It is apparent from reading these lines that there is no teaching or suggestion of “identifying a portion of very high probability of reuse” in this section. This section of Bowman-Amuah provides general component information that distinguishes “component-based systems from procedural, client/server systems”, but says nothing about identifying a “portion” of the procedural program that would have a “high probability of reuse” when wrapping that procedural program with a component system. While Bowman-Amuah generally describes the concepts of “components” and “wrapping” techniques, this claim limitation of “identifying a portion of very high probability of reuse” is not disclosed or suggested, either in the language cited by the Examiner, or in other parts of Bowman-

Amuah. For these reasons, reconsideration of the rejection of claim 1 is respectfully requested.

No “automatically generating the codes for wrapping the program workflow which includes business logic identified...”

The Examiner cites column 141, lines 17-27 of Bowman-Amuah as teaching the claim 1 element of “a component wrapper generating portion for automatically generating the codes for wrapping the program workflow which includes business logic identified in the business logic identifying portion.” That section reads:

Component-based Systems are Distinguished by a Business
Component Model
The Presence of a Reusable Business Component Model is 20
a Key Characteristic
A component-based software architecture may have a
domain component model shared by the application pro-
cesses. The component model contains the core business
components that represent the business directly in software. 25
These components perform behaviors upon request by
windows, reports, or batch process control objects.

From that section, there is no teaching or suggestion of the “business logic identified in the business logic identifying portion” (which is the “portion of very high probability of reuse” discussed above). Additionally, there is no discussion in this section of “automatically generating the codes...which includes the business logic identified.” Again, this section only explains a reusable component based system, but says nothing about the “wrapping the program workflow which includes business logic identified”, where the “business logic identified” is the “portion” discussed above.

For these reasons, reconsideration of the rejection of claim 1 is respectfully requested.

Independent Claims 6 and 15

Independent claim 6 is a method claim incorporating the claim elements discussed above with regard to claim 1 in method form. These steps include:

- “identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code analyzing portion;” and
- “generating automatically the codes for wrapping program workflow which include business logic identified in the business logic identifying portion.”

These steps include the similar language found in claim 1 of “identifying a portion of very high probability of reuse” and “generating automatically the codes for wrapping program workflow which include business logic.” Accordingly, for all the reasons provided above with

regard to claim 1 that equally apply to the similar language in these steps, claim 6 is not anticipated by Bowman-Amuah.

For these reasons, reconsideration of the rejection of claim 6 is respectfully requested.

Independent claim 15 is a computer readable medium claims with the same steps found in claim 6 of:

- "identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code analyzing portion;" and
- "generating automatically the codes for wrapping program workflow which includes business logic identified in the business logic identifying portion."

These steps include the similar language found in claim 6 (and claim 1) of "identifying a portion of very high probability of reuse" and "generating automatically the codes for wrapping program workflow which include business logic." Accordingly, for all the reasons provided above with regard to claim 6 (and claim 1) that equally apply to the similar language in these steps, claim 15 is not anticipated by Bowman-Amuah.

Dependent Claims 2-5, 7-10, 13 and 14

Dependent claims 2-5, 7-10, 13 and 14 all ultimately depend from independent claims 1 and 6. Accordingly, at least for the reasons provided above with regard to claims 1 and 6, these dependent claims are not anticipated by Bowman-Amuah.

In addition, each of these claims may contain additional limitations not found in Bowman-Amuah and are patentable over Bowman-Amuah in their own right based on these additional limitations.

Claim Rejections Under 35 U.S.C. § 103

Claims 11 and 12 and were rejected under 35 U.S.C. § 103(a) as being obvious over Bowman-Amuah. These claims are dependent claims that ultimately depend from independent claim 6. Accordingly, at least for the reasons provided above with regard to claim 6, these dependent claims are not rendered obvious by Bowman-Amuah.

Conclusion

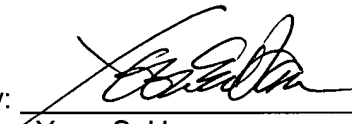
Therefore, all objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Applicants do not believe any fees are needed to accompany this Response. No extension of time is needed.

Should any issues remain unresolved, the Examiner is encouraged to contact the undersigned attorney for Applicants at the telephone number indicated below in order to expeditiously resolve any remaining issues.

Respectfully submitted,

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